# *Success in the Central Plateau*

## The Liquid Effluents Program within the Waste Management Project has achieved remarkable technical and financial achievement throughout the last decade. The Liquids Program consists of three main units:

242-A Evaporator

Since the 1994 upgrades and restart of the 242-A Evaporator, over 11 million gallons of high-level waste has been treated. This treatment activity has provided a savings in tank space equivalent to 12 double shell tanks. Operation of the evaporator, budgeted at $8,100,000 in 1995, has been reduced to $2,800,000—a reduction in operational cost of 65%.

2025E Effluent Treatment Facility

The 2025E Effluent Treatment Facility, commonly called ETF, is a multifaceted operating facility that processes radioactive mixed wastewaters. This facility is unique as operations can be converted from treating CERCLA wastewater to treating RCRA wastewater (and vice versa) within routine operating parameters. This facility has processed over 81 million gallons of water for disposal since operations began in 1997. The facility currently serves 21 wastewater generators including major Environmental Restoration streams. Consistent with operational cost savings throughout the Liquid Effluents program, ETF operational costs have dropped from $19,500,000 in 1995 to $12,500,000 in 2000—a 36% reduction in operational costs

200 Area Treated Effluent Disposal Facility

The 200 Area Treated Effluent Disposal Facility, also known as the TEDF, has disposed of over 1.1 billion gallons of industrial wastewater since operations began in 1995. This facility currently supports 16 site generators.

## Solid Waste Treatment and Disposal Program within the Waste Management project is in the forefront of a number of Hanford cleanup activities. Solid Waste Treatment and Disposal is using a combination of government owned and private facilities to meet site cleanup needs. Major components include:

Mixed Waste Treatment Program

Current plans are to use commercial treatment, supplemented by onsite facilities, to treat legacy and newly generated mixed waste. Hanford has shipped over 40,600 cubic feet (approximately 5800 55-gallon drum equivalents) of mixed waste to Allied Technology Group for treatment. Treatment of waste has reduced the volume approximately 57% to about 17,500 cubic feet that will be disposed in the Hanford Mixed Waste Disposal Trench 34.

Mixed Waste Disposal

Hanford currently has constructed the only Subtitle C RCRA compliant mixed waste trenches in the DOE Complex. All mixed wastes that are treated are currently disposed of in one of these trenches (Trench 34) in accordance with state, EPA, and DOE requirements. A second trench (Trench 31) already constructed and operational will be used for disposal as soon as Trench 34 fills with treated mixed waste.

T Plant Complex

The T Plant Complex, consisting of the 221-T Canyon, the 2706-T Complex, and Ancillary Facilities, provides treatment, verification, repackaging, decontamination services, and storage for wastes and materials. T Plant Canyon will be utilized for the storage of K Basin transuranic waste sludge recovered from cleanout of the basins. This waste will be stored until processed for disposal at WIPP. Utilizing the T Plant canyon for storage of K Basin sludge in lieu of the high level waste tanks allows acceleration of the Spent Nuclear Fuels Program along the river. In parallel with sludge activities, the T Plant complex is also a major player in the Hanford Site Transuranic Waste Program, providing head gas sampling capabilities in order to meet WIPP waste acceptance criteria. Verification activities are supported using Real Time Radiography (X-Ray) in conjunction with waste sorting. T Plant also supports the Office of River Protection vitrification program by providing for consolidation of high-level waste sample returns analyzed at Savannah River.

# *Success in the River Corridor*

310 Treated Effluent Disposal Facility

The 310 Facility, also called the 300 Area TETF, processes non-radioactive wastewater. The facility also has the ability to perform characteristic waste treatment under Permit-by Rule provisions. The 310 Facility receives the combined wastewater collection for the 300 Area. This facility has processed over 445 million gallons of water for disposal since operations began in 1994. The 310 Facility operational costs have dropped from $11,000,000 in 1995 to $3,700,000 in 2000—a 66% reduction in operational costs. Current costs amount to about six cents per gallon of waste treated.